

# Vehicle Weighing



**Performance that Pays Off**  
with Higher Profits

**METTLER TOLEDO**

# Innovative Weighing Solutions

## A Decisive Edge for Your Business

**METTLER TOLEDO offers the advanced vehicle-weighing capabilities needed to give your business an edge over the competition. The more important vehicle weighing is to your operation, the more you will benefit from our innovative technology, expertise, and global resources.**



**Accuracy**—POWERCELL® technology delivers the most accurate vehicle weighing available. It protects your profits by preventing the loss of valuable products and customers.



**Durability**—A vehicle scale is a big investment that should operate reliably for 20 years or more. We build scales to last, so that you get the longest service life for your money.



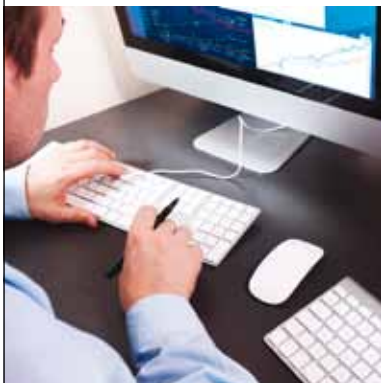
**Dependability**—METTLER TOLEDO vehicle scales operate reliably in the most demanding environments. They help eliminate the downtime that can turn a vital weighing operation into a costly bottleneck.



**Maintainability**—POWERCELL® PDX® technology is designed to simplify maintenance. It pays off in the long run because you spend less time and money on upkeep year after year.



### Engineering



You benefit from the most comprehensive design and analysis procedures in the industry. Experienced engineers use three-dimensional, computer-aided design to develop strong, durable weighbridges. Finite-element analysis evaluates how well those designs will perform under a full range of loading conditions.

### Testing



METTLER TOLEDO is the only manufacturer that performs life-cycle testing on actual scale modules. The Module Masher test stand simulates 20 years of truck traffic at full design load. This testing procedure verifies your truck scale's ability to stand up to the real-world demands of vehicle weighing.

### Manufacturing



You get the same high performance from every scale, every time. Our world-class manufacturing facilities maintain the highest quality at all stages of the operation:

- Precision cutting and forming
- Robotic and manual welding
- Three-step finishing for a durable, protective coating

# Truck Scales

## Keep Your Business Moving

**A truck scale will have a long-term impact on your operation. In many cases, it is vital to your ongoing productivity and profitability. With a full range of steel-deck and concrete-deck truck scales, METTLER TOLEDO can work with you to find the right weighing solution to keep your business moving.**

### Full-Length Scales



Full-length scales are the first choice for legal-for-trade weighing. Using modular designs, we supply weighbridges to handle even the longest trucks and most complex loading operations. You get reliable weighing, even when dealing with heavy traffic and punishing environments.

### Axle Scales



Axle scales are an economical option when legal-for-trade weighing is not required. They check axle weights to make sure your trucks are loaded properly and comply with highway weight limits. Because these scales are sized to weigh individual axles, they cost less and require less space.

### Multi-Platform Scales



Multi-platform scales use a series of independent platforms to determine individual axle weights and gross vehicle weight. They provide both legal-for-trade weighing and a quick, one-step method of verifying that trucks comply with highway weight limits.





### Portable Scales



Portable scales are ideal for weighing operations that move from site to site. Steel frames allow you to relocate scales quickly and easily, saving the time and expense of pouring a new concrete foundation. Instead of waiting weeks for concrete to cure, you can have a portable scale up and running in hours.

### Grain-Dump Scales



A driving surface made of steel grating lets trucks unload grain while on the scale. Save time by eliminating the need to make repeated trips between a scale and a separate unloading area. Grating is also used for containment systems to handle accidental spills of liquids.

### Weigh-in-Motion Scales



Weigh-in-motion (WIM) scales are a highly efficient method of weighing large numbers of trucks quickly. METTLER TOLEDO WIM systems weigh trucks that are traveling at speeds up to 65 mph (100 km/hr). Applications include highway weigh stations and sea-ports that handle heavy traffic.

# Railroad Track Scales

## Built to Handle the Heaviest Loads

**Strength and durability are essential when weighing rail cars. METTLER TOLEDO railroad track scales are built to stand up to the massive loads applied by rail traffic. These heavy-duty weighing systems provide accurate weighing, while helping you to avoid costly delays and downtime.**

### Static Weighing



A static scale is designed to weigh an individual rail car that is uncoupled from a train and stopped on the scale. Options for single-draft weighing include a full-length scale or a scale that consists of two weighbridges spaced to weigh rail cars of various lengths.

### In-Motion Weighing



A coupled in-motion (CIM) railroad track scale is used to weigh rail cars that are coupled together and moving across the scale at speeds of 3 to 5 mph (5 to 8 km/hr). It makes weighing quicker and safer by eliminating the need to uncouple each rail car and position it on a static scale.

### Truck/Rail Weighing



Save money and space with a combination truck/rail scale. A single weighbridge combines a static railroad track scale with a platform for weighing trucks. The rails are recessed to form an even surface that trucks can drive across safely and easily.

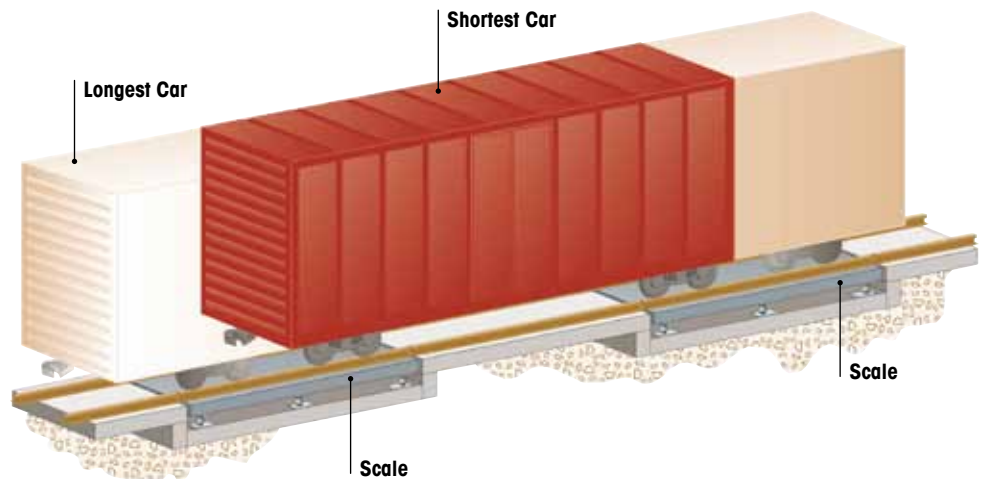
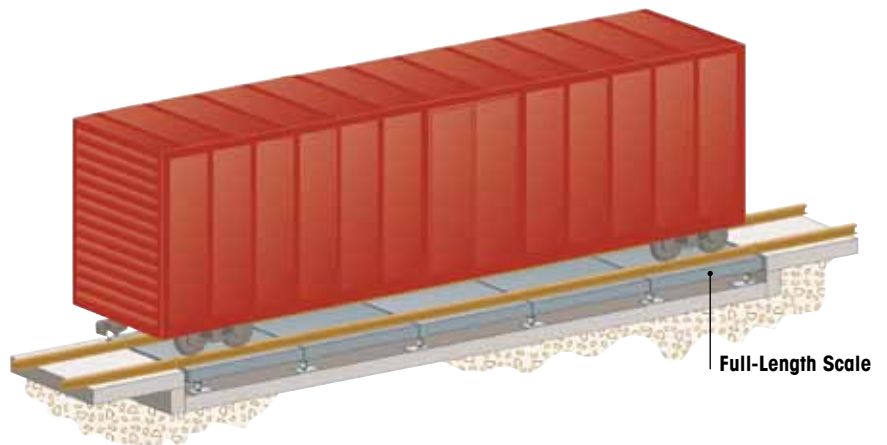




### Weighing Options

Multiple-draft weighing requires re-positioning rail cars on a short scale to weigh each set of axles separately. Single-draft weighing is a more effective solution for legal-for-trade applications. Compared with multiple-draft weighing, it provides faster weighing, higher accuracy, and lower handling costs.

You can do single-draft weighing with a full-length scale or with two scales installed in tandem. The two scales are spaced to accommodate the wheels of the longest and shortest rail cars. By summing the two weights, the scale terminal calculates an accurate weight for the entire rail car.



# Load Cell Technology

## Protect Your Profits

**Load cells are the key to your vehicle scale's performance. POWERCELL® PDX® load cells protect your profits by providing exceptional accuracy and reliability. This unique digital weighing technology delivers the highest return on your investment by outperforming and outlasting other load cells.**

### **Digital Performance**

POWERCELL® PDX® load cells are easy to calibrate to a high level of weighing accuracy. They use digital compensation to maintain their accuracy despite changing environmental conditions that adversely affect conventional load cells.

### **Predictive Diagnostics**

Diagnostic capabilities are built into each load cell. The proactive diagnostic system monitors performance constantly and alerts the scale operator if service is needed.

### **Streamlined Network**

The POWERCELL® PDX® network eliminates junction boxes, the number one cause of vehicle scale failure. The result is a simplified load cell network that is fully sealed against moisture damage.







### Upgrades and Conversions

If your existing vehicle scale is plagued by downtime and high maintenance costs, a conversion might be the answer. METTLER TOLEDO offers kits to replace obsolete weighing systems with POWERCELL® PDX® technology. You get a performance upgrade for much less than the cost of a new scale.



### POWERCELL® GDD Load Cells

You get accurate POWERCELL® weighing performance at a lower cost.



### Analog Load Cells

Analog load cells are an economical alternative to POWERCELL® technology. Junction boxes are required.

# Scale Terminals

## Performance and Automation

**By combining advanced capabilities with simple operation, our terminals enable you to do more with your scale and get it done more quickly. Connect with the systems needed to automate your operation and manage data. Choose a scale terminal or controller that fits your requirements and budget.**

### Scale Terminals



Whether your vehicle scale is used for simple weighing or as part of a filling process, we can supply the right terminal for the job. Your options range from basic weighing terminals to advanced terminals with connectivity to your PLC or other process-control system.

### Unattended Terminals



Reduce operating costs with unattended driver terminals. These controllers allow truck drivers to process their own weighing transactions, eliminating the need to maintain a scale house with an operator on duty. You determine what information is collected and how the driver enters it.

### Railroad Scale Controllers



Simplify in-motion weighing with a controller that automatically captures rail car ID and weight information as trains travel across a scale. The controller records and prints weight information, while storing data for hundreds of trains.



#### **IND246 Terminal**

- Basic weighing terminal handles inbound/outbound transactions on one vehicle scale.
- Easy-to-read weight display.
- Stores permanent and temporary vehicle IDs and transaction records.
- Basic connectivity options for exchanging data and input/output control.

#### **IND570 Terminal**

- Powerful weighing terminal handles inbound/outbound transactions and filling operations on one vehicle scale.
- Easy-to-read weight display.
- Stores permanent and temporary vehicle IDs and transaction records.
- Multiple connectivity options, including interfaces with PLCs and other control systems.



#### **IND780 Terminal**

- Advanced weighing terminal handles inbound/outbound transactions and filling operations on one or two vehicle scales.
- Large graphic display to show more information.
- Extensive database for storing permanent and temporary vehicle IDs and transaction records.
- Widest range of connectivity and control options plus the ability to customize solutions.



# Vehicle Scale Software

## Simple and Efficient Operation

**DataBridge™ software saves time and money by giving you complete control of your vehicle-weighing operation. Process your weighing transactions and store a complete record of all material that is shipped or received. Three levels of software offer solutions for every size and type of business.**

### DataBridge™ SS Software



This scale-house software is designed for single-site operations with basic weighing needs. It controls inbound/outbound weighing on one or two scales. You get simpler, faster processing without the errors caused by manual data entry.

### DataBridge™ MS Software



This scale-management system can connect scales at multiple sites to a shared database. It has more weighing options, including unattended weighing and control of traffic lights and other equipment. You get enhanced security and data-analysis capabilities.

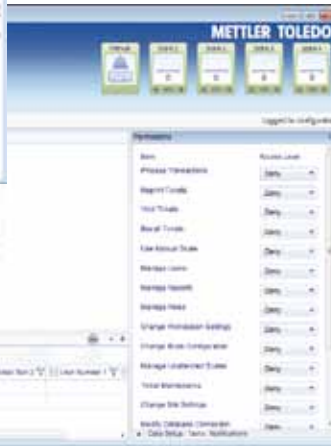
### DataBridge™ ES Software



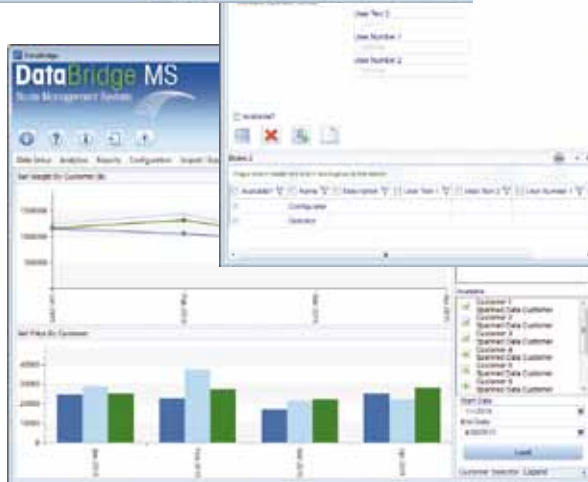
This scale-enterprise solution manages multiple sites with centralized data input. It is a web-based application that allows complete business-system integration. The powerful software system enables you to build a complete IT, accounting, and finance solution.



**Weighing Screen**  
 Touch-screen capabilities let you process weighing transactions quickly and easily.



**Security**  
 Protect your business with powerful security settings and features designed to prevent fraud at your truck scale.



**Data Reporting and Analysis**  
 Make full use of your data with built-in capabilities to create reports and analyze data.

# Complete Weighing Systems

## Added Value for Your Scale

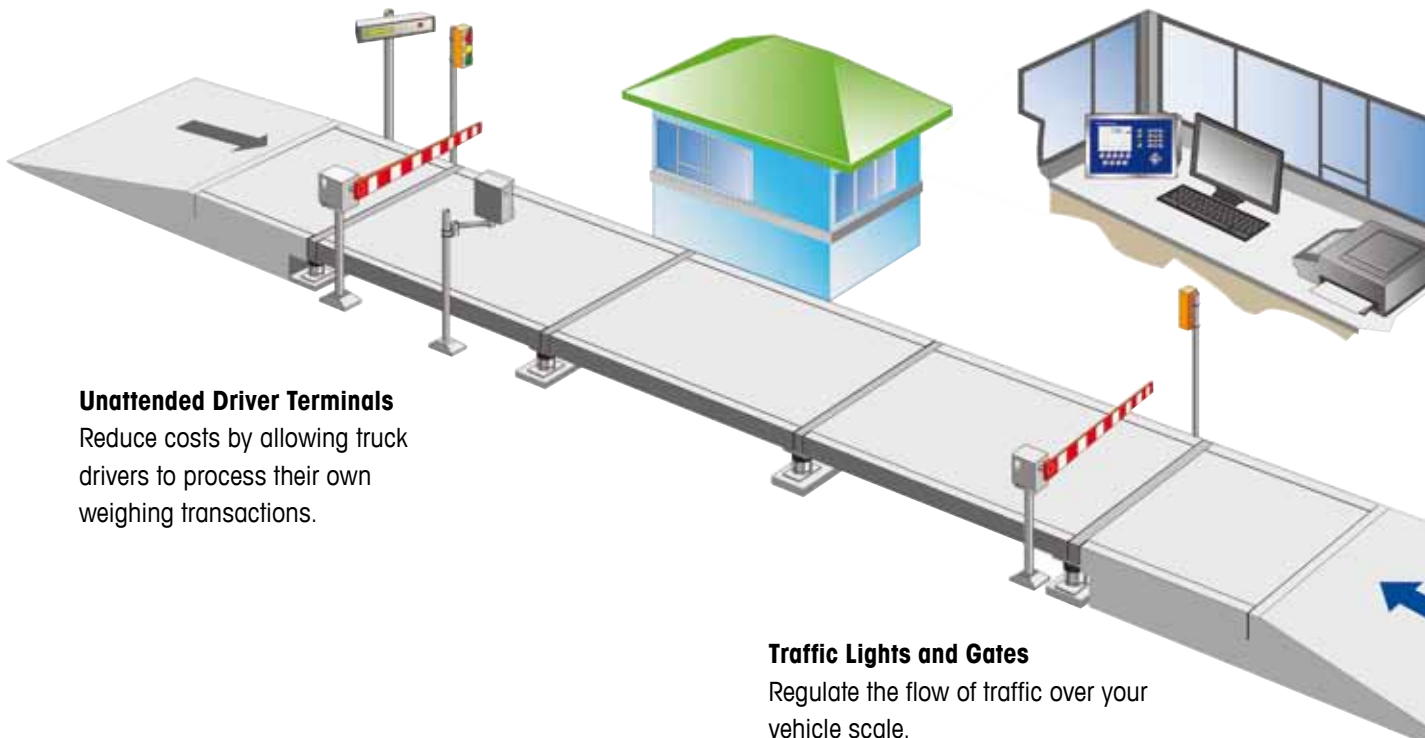
**A vehicle scale is more than just a weighbridge. By supplying complete weighing systems, we can make a scale an integral part of your business. Streamline your operation with equipment that regulates traffic, identifies vehicles, and prints receipts for transactions.**

### Remote Displays

High-visibility displays make it easy for drivers and other personnel to see weights from a scale.

### Readers

Reduce data entry and errors by using badges to identify vehicles or materials.



### Unattended Driver Terminals

Reduce costs by allowing truck drivers to process their own weighing transactions.

### Traffic Lights and Gates

Regulate the flow of traffic over your vehicle scale.





### Lightning Protection

Prevent costly damage and downtime with a StrikeShield™ system that protects the entire scale: load cells, cables, and terminal. Independent laboratory tests have proven the POWERCELL® PDX® system's ability to survive multiple lightning strikes of up to 80,000 amperes.

### Printers

Printers connected to a scale terminal or software provide automatic printing of tickets and receipts.

### Loops and Photo-Eye Sensors

Sense the presence of a vehicle and enable automatic operation of traffic lights and gates.



# Installation and Service

## Keep Your Operation Running

Get the most out of your investment. Benefit from the vehicle-weighing expertise that METTLER TOLEDO brings to the table. We have decades of experience working with customers at all stages of their projects, from site planning to ongoing maintenance.

### Installation Capabilities

- Design a scale site to handle heavy traffic efficiently.
- Vehicle scale installation by experienced technicians.
- Scale calibration and certification.
- Set up an ongoing maintenance program.



### Service and Preventive Maintenance

A vehicle scale is a long-term investment. Certified service technicians from METTLER TOLEDO can protect that investment by keeping your scale operating efficiently and ensuring a long service life.

[www.mt.com/vehicle](http://www.mt.com/vehicle)

For more information

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